APPLICATION

of

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and

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for

UNITED STATES LETTERS PATENT

on

BUSINESS ANALYSIS AND MANAGEMENT

SYSTEMS UTILIZING ENTERPRISE METRICS

Client ID/Matter No. 65568/ENCMP

Sheets of Drawing Figures: 12

Customer No. 24201

Express Mail Label No. EV130092122US

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BUSINESS ANALYSIS AND MANAGEMENT
SYSTEMS UTILIZING ENTERPRISE METRICS

CROSS-REFERENCE TO RELATED APPLICATION

5   This application is claiming the benefit of a co-pending provisional application Serial No. 60/417,098 filed on October 8, 2002. The material of the related provisional application is incorporated by reference herein. This application is being concurrently filed with a related utility application entitled BUSINESS ANALYSIS AND MANAGEMENT SYSTEMS UTILIZING EMERGENT STRUCTURES co-pending

10 from provisional application Serial No. 60/417,018.

   A Compact Disc-Recordable (CD-R) which includes a computer program listing is submitted with this application, since the computer program listing has over 300 lines of code. The material on the CD-R is also incorporated by reference herein.

   A portion of the disclosure of this patent document contains material which is

15 subject to copyright protection. The copyright owner has no objection to the facsimile reproduction by anyone of the patent document or the patent disclosure, as it appears in the Patent and Trademark Office patent file or records, but otherwise reserves all copyright rights whatsoever.

BACKGROUND OF THE INVENTION

20   Field of the Invention:

   This invention relates generally to enhanced business analysis, evaluation and management systems and, more particularly, to improvements in such systems where increased accuracy, efficiency and effectiveness is achieved in the analysis of complex interactive system/organizational relationships and environments through the use of

25 enterprise metrics generated via the practice of the invention.

Description of Related Art:

There has been a long existing need in the business world for various methods and means for enhancing organizational processes and dealing with relevant organizational issues to achieve effective management in ever changing, complex, interactive systems and environments. Unfortunately, efforts to date in attempting to efficiently and effectively deal with relevant issues and relationships in such organizations have met with little success. Accordingly, the present invention obviates the disadvantages of such prior efforts and achieves unprecedented success where other approaches have heretofore failed.

SUMMARY OF THE INVENTION

Briefly, and in general terms, the enterprise metrics analysis system and business method of the present invention includes a computer-supported tool for improved enterprise process analysis and change management. The new and improved system and method of the present invention is practiced in a system which collects data on the patterns of interaction among people in an organization, analyzes these relationships with respect to specific organizational processes and issues, and presents the results in a graphical format useful for business management decisions.

More particularly, by way of example and not necessarily by way of limitation, the enterprise metrics of the present invention includes a set of tools available to a consultant in the data analysis stage of the process, through the EnCompass® software. "EnCompass®" is a registered trademark of EnCompass Knowledge Systems, Inc., Los Angeles, California, the company which has pioneered innovative tools for analysis of interactive relationships and dynamics. Using a novel combination of statistical methods, enterprise metrics measure the amount of agreement among the organization's members with regard to the importance and impact of all their individual interactions with one another.

Taken singly, each of these metrics tools or indicators provides a means for quantifying an organizational characteristic such as "integration" or "clarity", which, in other analytical settings, is typically described in less precise and more impressionistic terms. Collectively, they amount to an overall "scorecard" of the degree to which an

5   organization's communications and decision-making processes are integrated and effective. Once established, these figures can serve as benchmarks for orienting and monitoring organizational change and improvement, in accordance with the present invention.

Each of the individual enterprise metrics is based on a statistical equation that is

10   automatically applied to a group of records, selected from an existing database according to criteria previously defined in the EnCompass® software. The context within which each of the results is displayed is likewise part of the EnCompass® system . The enterprise metrics, applied as the business method of the present invention, involves the statistical measurements themselves, as they are applied to the

15   study of organizational dynamics, and the procedures by which the software selects appropriate database records and determines the resulting values for each of the metrics.

Enterprise metrics currently comprise six measurement groups, but may include others without departing from the scope of the invention. These groups may include

20   the following:

1) CLARITY (or "alignment") is the overall level of agreement and understanding among the members of the organization or organizational unit;

2) INVOLVEMENT is a measure of how effectively the organization's members are engaged in carrying out the tasks that are viewed as important to it;

25   3) LEVERAGE is the degree to which the existence of an organization provides its members with greater influence than they would have a independent individuals;

4) PRIORITY is a measure of the perceived impact of all the issues examined in an EnCompass study;

5) RELATIVE PRIORITY is a measure of the perceived impact of a selected issue, as compared with that of the other issues under consideration; and

6) INTEGRATION measures the degree of interconnection between two organizations or organizational units, by examining the links between them.

The enterprise metrics evaluate links between nodes on a tree structure provided by the EnCompass® software. Therefore, the numbers they return depend on how many nodes are included in the calculation, and which ones. The program calculates the figures for every node (including the root) on the basis of a particular tree structure, whose depth and direction can be altered in two different ways. Noninteractively - that is, outside the user's control - the program can present metrics families which define various groups of nodes. Under the user's control within the user interface, the depth and direction of the tree display itself can limit the number of nodes to be included in the tree, and hence the calculation.

The most general use of the EnCompass® enterprise metrics is to examine the performance of an organization as a whole. For this, the analyst simply displays a tree with the highest-level entity as its root, and reads the figures attached to that node. However, metrics are in fact calculated and displayed for every node in the tree - that is, every person who is represented in a given analysis. When an analyst wishes to focus attention on a specific part of an organization, he or she can read the figures for any individual node.

It is possible to define families of metrics, which specify the group of nodes upon which the calculations will be based. Currently, there are two such families for all metrics. The immediate family includes only the node and its direct child nodes. The extended family includes a node and all those beneath it on the tree. Therefore, immediate metrics are based on a person's interactions with only those who report to

him or her directly, whereas extended metrics produce figures reflecting his or her relationships with all subordinates at any level.

For the Clarity metric, there is an additional type; node clarity calculates the numbers of confirmed vs. unconfirmed links from the point of view a single node. In other words, the node's family includes only itself.

Other metrics families are also possible: for example, influence metrics count those persons anywhere in the organization who are within a person's sphere of influence, that is, those with whom the person has direct interaction links. Organization metrics measure any person's clarity, involvement, or other parameter with respect to the organization as a whole.

The user interface permits the analyst to limit the tree display to a desired number of levels. If the selected depth is less than that of the organization structure, the metrics calculations will change accordingly.

For any node, the direction of the tree also strongly affects the calculations for all nodes. Irt is possible to construct a tree upward though the data structure, so that the values for any individual node are calculated with respect to those above him or her in the organizational hierarchy, either direct superiors (in the case of the immediate metrics family) or all the way to the top of the organization structure (for extended metrics).

All of the above and other features of the invention are facilitated by appropriate software for providing/enabling the functions in the illustrated and equivalent embodiments to "make it happen" in achieving new and improved business analysis and management systems utilizing enterprise metrics.

These and other objects and advantages of the invention will become apparent from the following more detailed description, when taken in conjunction with the accompanying drawings of illustrative embodiments.

BRIEF DESCRIPTION OF THE DRAWINGS

FIGURE 1 is a table of project issues used in the practice of the present invention;

FIGURE 2 is a data collection instrument in tabular form;

5   FIGURE 3 illustrates a data collection record for general data;

FIGURE 4 illustrates a data collection record for issue-specific data;

FIGURE 5 is an example analysis display;

FIGURE 6 illustrates a model 1 query selection;

FIGURE 7 illustrates a basic tree structure used in practicing the invention;

10   FIGURE 8 illustrates the superimposing of horizontal links;

FIGURE 9 illustrates traversing a tree in "IN" order;

FIGURE 10 illustrates a show results panel;

FIGURE 11 illustrates an extended node family;

FIGURE 12 illustrates an immediate node family; and

15   FIGURE 13 illustrates a display of metrics results.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Briefly, and in general terms, the enterprise metrics analysis system and business method of the present invention includes a computer-supported tool for improved enterprise process analysis and change management. The new and improved

20   system and method of the present invention is practiced in a system which collects data on the patterns of interaction among people in an organization, analyzes these relationships with respect to specific organizational processes and issues, and presents the results in a graphical format useful for business management decisions.

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15 effective. Once established, these figures can serve as benchmarks for orienting and monitoring organizational change and improvement, in accordance with the present invention.

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25 appropriate database records and determines the resulting values for each of the metrics.

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All of the above and other features of the invention are facilitated by appropriate software for providing/enabling the functions in the illustrated and equivalent embodiments to "make it happen" in achieving new and improved business analysis and management systems utilizing enterprise metrics.

5   The attached Exhibits A through H are provided in this application as explanatory of the preferred embodiments of the invention. These exhibits are:

Exhibit A -   The EnCompass® Enterprise Metrics - 64 pages;

Exhibit B -   Parasol - Object-Oriented and Graphical Database Reference and Visualization - 4 pages, double-sided;

10   Exhibit C -   C+Objects - Volume One - Foundation Data Structures - 8 pages double-sided;

Exhibit D -   Parasol Developer User Guide - bound;

Exhibit E -   C+O Class Library Foundation Data Structures - OS/2 Version/Volume One User's Guide - bound;

15   Exhibit F -   C+O Class Library Foundation Data Structures - OS/2 Version/Volume One Reference Manual - bound;

Exhibit G -   Transmittal Letter for Compact Disc containing EnCompass® Program - 5 pages; and

Exhibit H -   Two Compact Disc-Recordable (CD-R's) for EnCompass®
20   Enterprise Metrics.

Of course, while the invention is described, by way of example, in the context of a business organization, the teachings of the invention may also be applicable to analysis of other systems and environments.

Examples of a preferred form of source code, for use in carrying out the above
25   described software and firmware steps in conjunction with the hardware as described above in the practice of the present invention, are included in the CD-R as the official copy thereof which is a computer program listing appendix, and which is a part of this application and incorporated by reference herein.

It will be apparent from the foregoing that, while particular forms of the invention have been illustrated and described, various alternatives, modifications and variations can be made without departing from the spirit and scope of the invention. Accordingly, the invention is intended to embrace all such alternatives, modifications

5   and variations and it is not intended that the invention be limited, except as by the appended claims.